



### **SUBSTITUTE ABSTRACT**

A laser device has a substrate and at least one GaN-based layer upon a first surface of the substrate, and the laser device is cleaved by cutting linear grooves into a second surface of the substrate such that the grooves are in alignment with vertical planes of the substrate. The substrate and the at least one GaN-based layer are cleaved along the vertical planes. The cutting is performed using a laser beam from an external laser source.